

Amendments to the Claims

Claims 1-6 (Canceled)

Claim 7 (Currently amended): A thin film chip resistor resistant to moisture without use of metallic tantalum comprising:

a substrate;

a single metal thin film resistive layer directly attached to the substrate, the metal thin film layer being non-tantalum;

a non-tantalum chip resistor termination attached on each end of the metal thin film resistive layer; an outer moisture barrier consisting of tantalum pentoxide directly overlaying and contacting the metal thin film resistive layer for reducing failures due to electrolytic corrosion under powered moisture conditions; and

the outer moisture barrier formed from deposition of tantalum oxide on the metal thin film resistive layer and not through oxidation of tantalum.

Claim 8 (Original): The thin film resistor of claim 7 wherein the metal film layer is an alloy containing nickel.

Claim 9 (Original): The thin film resistor of claim 7 wherein the metal film layer is an alloy containing chromium.

Claim 10 (Original): The thin film resistor of claim 7 wherein the metal film layer is a nickel-chromium alloy.

Claim 11 (Canceled)

Claim 12 (Original): The thin film resistor of claim 7 wherein the tantalum pentoxide layer is overlaid by sputtering.

Claim 13 (Currently amended): A nickel-chromium alloy thin film chip resistor resistant to moisture without use of metallic tantalum comprising:

an alumina substrate;

a single nickel-chromium alloy thin film layer directly contacting the substrate;

a non-tantalum chip resistor termination attached on each end of the nickel-chromium alloy thin film;

an outer moisture barrier consisting of tantalum pentoxide directly overlaying and contacting the nickel-chromium alloy thin film layer for reducing failures due to electrolytic corrosion under powered moisture conditions; and

the outer moisture barrier formed from deposition of tantalum oxide on the nickel-chromium alloy thin film layer and not through oxidation of tantalum.

Claim 14 (Canceled)

Claim 15 (Currently amended): A nickel-chromium alloy thin film chip resistor resistant to moisture without use of metallic tantalum comprising:

an alumina substrate;

a single nickel-chromium alloy thin film layer directly contacting the substrate;  
a non-tantalum chip resistor termination attached on each end of the nickel-chromium alloy thin film;  
a passivation layer directly overlaying and contacting the nickel-chromium alloy layer; an outer moisture barrier consisting of tantalum pentoxide directly overlaying and contacting the passivation layer for reducing failures due to electrolytic corrosion under powered moisture conditions; and  
the outer moisture barrier formed from deposition of tantalum oxide on the passivation layer and not through oxidation of tantalum.

Claim 16 (Canceled)